



MAGNETIC RESONANCE IMAGING (MRI)



FACT SHEET

Niagara Health is pleased to provide you with general information about your upcoming exam.

WHAT IS MAGNETIC RESONANCE IMAGING (MRI)?

MRI stands for Magnetic Resonance Imaging. It is a medical imaging technique used to create detailed images of the organs and tissues inside your body. MRI uses a powerful magnet, radio waves, and a computer to generate these images.

HOW DOES AN MRI WORK?

- **Magnet:** An MRI machine has a strong magnet that generates a magnetic field.
- **Radio Waves:** Radio waves are sent into your body.
- **Detection:** The magnet and radio waves cause hydrogen atoms in your body to produce signals.
- **Imaging:** A computer processes these signals to create detailed images of your body.

WHY MIGHT I NEED AN MRI?

- Diagnose and monitor conditions affecting the brain, spinal cord, joints, and organs.
- Evaluate soft tissues like muscles, ligaments, and cartilage.
- Investigate unexplained symptoms or diseases.
- Plan and assess the progress of treatments.

WHAT TO EXPECT DURING AN MRI

- **Preparation:** You will be asked to change into a hospital gown before your exam and place your clothes and belongings in a locker. It's advisable to leave valuables at home, including jewelry, to prevent from being lost.
- **Procedure:** You will lie down on a table that slides into the MRI machine. The machine is noisy, but you will be provided with earplugs or headphones. You will be required to lie completely still during the MRI exam. The technologist will have you in full view, and will be in contact with you via a two-way microphone system.
- **Duration:** The scan typically takes 15-60 minutes, depending on the area being examined.
- **Contrast Agents:** Sometimes, a contrast agent (dye) may be used to enhance the images. This is injected into a vein in your arm.

IS AN MRI SAFE?

- **Non-invasive:** MRI does not use ionizing radiation (like X-rays).
- **Magnetic Field:** The strong magnet used in MRI is generally safe. Inform your doctor if you have metal implants, pacemakers, or other electronic devices.
- **Contrast Agents:** If used, contrast agents are generally safe, but notify your doctor and the technologist if you have allergies or kidney problems.

PREPARATION TIPS

- **Inform Your Doctor:** Share any medical conditions, metal implants, or allergies.
- **Are you claustrophobic:** If you are anxious about your MRI due to claustrophobia (fear of enclosed spaces), keep in mind that modern MRI machines are designed to be more accommodating than older models. Our scanners are well-lit, ventilated, and open at both ends. However, if you are still concerned, discuss it with your doctor beforehand. They may prescribe medication to help manage your anxiety.
- **Avoid Metal:** Remove all metal items before the scan.

WHAT IF I COULD BE PREGNANT?

- Please inform the staff in MRI Department if it is possible that you are pregnant. The test may have to be delayed.

WHAT SHOULD I BRING TO MY APPOINTMENT?

- Please bring your Ontario Health Card.
- Please note that the Niagara Health System is a scent-free environment.

AFTER THE MRI:

- **Normal Activities:** You can usually resume normal activities immediately after the scan.
- **Results:** The images are analyzed by specialized doctors, and the results will be sent to your doctor.